Nevada – Tuberculosis Program

Hospital - TB Risk Assessment

Today's Date _____

Facility _____

Address _____

Phone _____ County _____

Completed by _____ Title _____

I_____, Medical Director of the facility or Designee, or another Licensed Physician; have reviewed and confirmed to the best of my knowledge the answers in this assessment (parts A- H) are correct and I certify the TB risk classification for this facility on this date: _____to be: _____ (as described on Part C of this document). *This **must** be completed if classified as LOW RISK.*

PART A - INCIDENCE OF TB

1. Does your facility accept patients with suspected or confirmed TB? _____
2. How many TB cases were in your facility in the last year, including the ED prior to diagnosis? _____
3. How many TB cases were Inpatients? _____ Outpatient? _____
4. How many TB cases were in your facility in the last 5 years? _____
5. How many TB cases were reported in your County in the last year? _____
6. Number of TB cases identified in the State of Nevada last year? _____
   Obtain information from local health department or the TB Fast Facts on the state website at: http://health.nv.gov/CD_HIV_TBProgram.htm
7. How many inpatient beds are in your facility? _____
8. Check all categories that apply to your facility for the last year:

Inpatient
_____ No TB cases
_____ < 200 beds and < 3 pts with TB per year
_____ > 200 beds and < 6 pts with TB per year

Inpatient
_____ < 200 beds and ≥ 3 pts with TB per year
_____ ≥ 200 beds and ≥ 6 pts with TB per year

Inpatient
_____ Evidence of ongoing *M. tuberculosis* transmission

Outpatient
_____ No TB cases
_____ < 3 patients with TB per year

Outpatient
_____ ≥ 3 pts with TB per year

Outpatient
_____ Evidence of ongoing *M. tuberculosis* transmission

PART B – RISK FACTORS TO CONSIDER – (*Check all that apply*)

Yes	No	
☐	☐	1. Is there a relatively high prevalence (population affected at this time) of TB disease in the community/communities your facility serves? (refer to part A)
☐	☐	2. Is there evidence of ongoing or unresolved nosocomial transmission in your facility?
☐	☐	3. Is there evidence of recent transmission of TB in your facility?
☐	☐	4. Are there patients, residents, admits or health care workers with immunocompromising conditions in your facility?
☐	☐	5. Have all new hire, residents and admits had a TB risk evaluation or assessment performed? Forms for each are conveniently located at: (http://www.health.nv.gov/PDFs/TB_Forms/RiskAssessmentforTB_resident.pdf and http://www.health.nv.gov/PDFs/TB_Forms/RiskAssessmentforTB_employee.pdf Has appropriate follow-up been performed? *For more information, call your local health department or the State TB Program website at*: http://www.health.nv.gov/CD_HIV_TBProgram.htm
☐	☐	6. In the last year has your facility had any patients with drug resistant TB?

PART C – ASSIGNING A RISK CLASSIFICATION (*Check only one box for each department/ancillary service*) **In the tables below, rate these higher risk settings in your facility based on Parts A and B as follows:**

- If less than (<) 3 TB cases in part A **and** "No" in part B is applicable for each setting the setting may be classified LOW RISK. (See TB screening requirements page 6).
- If greater than or equal to (≥)3 TB cases in part A **or** any "Yes" box in part B is applicable this setting is classified MEDIUM RISK. (See TB screening requirements page 6).
- If Evidence of ongoing *M. tuberculosis* transmission is identified (when TB is spreading from one person to another) the facility is classified as POTENTIAL ONGOING TRANSMISSION (See TB screening requirements page 6).

Department	Low	Medium	Potential Ongoing Transmission
Emergency Department	☐	☐	☐
Intensive/Critical Care Units	☐	☐	☐
Surgical Suite	☐	☐	☐

Ancillary Services	Facility does not provide this service	Medium	Potential Ongoing Transmission
Facility has a Laboratory which manipulates specimens which may contain *M. tuberculosis*	☐	☐	☐
Facility which has an area where Bronchoscopies are performed	☐	☐	☐
Facility Performs Sputum Induction or has Respiratory Therapy Room	☐	☐	☐
Facility has Autopsy Suite or Embalming Room	☐	☐	☐
Facility has a Dialysis Unit – treats ESRD (end stage renal disease) - *Screen patients too!*	☐	☐	☐

It is recommended that a single risk classification be determined / assigned for a facility as a whole. However, in certain settings (e.g., health-care organizations that encompass multiple sites or types of services), specific areas defined by geography, functional units, patient population, job type, or location within the setting might have separate risk classifications.[i] Should a facility decide not to apply the highest risk classification recommended for a particular unit in the facility to the entire setting thereby meeting the minimum requirements for TB screening, the facility must determine a risk classification and subsequent testing frequency for each setting in the facility independent of each other on an annual basis.

PART D – TUBERCULOSIS SCREENING TESTS

1. Does your facility have a TB screening program for the health care workers (HCWs)? _____
   Describe: _____
   _____
2. Are the TB screening records maintained and where?
   _____
3. Who is responsible for maintaining these records? _____
4. If annual screening is performed, list the conversion rate for: (*number of positive TSTs or IGRA's divided by number tested*) for:

   Last year (12 months) _____ 4 years _____
   2 years _____ 5 years _____
   3 years _____

Comments:

PART E - TB TRIAGE PLAN & INFECTION CONTROL PLAN

1. Does your facility have an airborne infection isolation (AII) room(s) and does your facility accept patients with TB? _____

If No, where does your facility transfer TB cases? _____

2. Does your facility have a Triage Plan for confirmed or suspected TB cases? _____
3. Does this plan include Inpatient setting? _____ Outpatient setting? _____
4. The Triage Plan was last updated? _____
5. Does the Triage Plan need to be updated? _____
6. Does your facility have a written TB Infection Control Plan? _____
7. Does this plan include Inpatient setting? _____ Outpatient setting? _____
8. The Infection Control Plan was last updated? _____
9. Does the Infection Control Plan need to be updated? _____
   For help with Infection Control Plan call your local health department or refer to the TB Infection Control protocols on the state website at: http://health.nv.gov/CD_HIV_TBManual.htm
10. Is there an Infection Control Committee for your facility? _____
11. Check the groups that are represented on the Infection Control Committee:

    ___ Infectious Disease Physician(s) ___ Other Physician(s)
    ___ Registered Nurse(s) ___ Epidemiologist(s)
    ___ Engineer(s) ___ Laboratory Personnel
    ___ Infection Control Practitioner(s) ___ Employee Health Personnel
    ___ Occupational Health Personnel ___ Administrators

___ Safety ___ Other _____

PART F - IMPLEMENTATION OF TB TRIAGE PLAN & TB INFECTION CONTROL PLAN

1. Who is responsible for the implementation of the Triage Plan and Infection Control Plan? _____
2. Are the Plans being properly implemented?_____ Describe how these plans are implemented
   Triage Plan: _____
   Infection Control Plan: _____
3. Do the Triage Plan and Infection Control Program ensure prompt detection, airborne infection isolation, transfer and treatment of potentially infectious TB patients? _____
4. What mechanisms are there to catch and correct lapses in infection control? (e.g. TST conversion data, patient medical records, time analysis)_____
5. List ongoing infection control training and education available to your facility's HCWs. _____
   _____

Comments:

PART G – ENVIRONMENTAL CONTROLS

1. Which environmental controls does your facility have in place? (check all that apply)
   ___ Local exhaust ventilation (enclosing devises, exterior devices)
   ___ General ventilation (e.g. single-pass system, recirculation system)
   ___ Air-cleaning methods (e.g. HEPA filtration, UVGI)
   ___ Airborne infection isolation rooms (AII) (e.g. negative pressure rooms)
2. Which local exhaust ventilation devices does your facility have? (check all that apply)
   ___ Enclosing devices (lab hoods, booths for sputum induction, tents or hoods for enclosing or placing a patient in airborne infection isolation)
   ___ Exterior devices (exhaust fans, air handlers, heat recovery ventilators, intermittent whole-house exhaust systems)
3. What general ventilation systems are used in your facility?
   ___ Single pass system ___ Recirculation system
   ___ Variable air volume (VAV) ___ Constant air volume (CAV)
   ___ Other _____
4. What air cleaning methods are used in your facility?

   HEPA filtration
   ___fixed room-air recirculation systems
   ___ portable room-air recirculation systems

   UVGI
   ___ duct irradiation
   ___ upper-air irradiation
   ___ portable room-air cleaners
5. How many airborne infection isolation (AII) rooms are there in your facility? _____
6. What ventilation methods are used for airborne infection isolation (AII) rooms?
   ___ single-pass heating, ventilating and air conditioning (HVAC)
   ___ recirculating HVAC systems ___ HEPA filtration

___ fixed room-recirculating units Other _____

7. Does your facility employ, have access to, or collaborate with, an environmental engineer for consultation on design specifications, installation, maintenance, and evaluation of environmental controls? Explain _____
_____
_____
8. Are environmental controls regularly checked and maintained with results and recorded in logs? Explain _____
_____
_____
9. Do AII rooms meet the recommended pressure differential of 0.01" of water column negative to surrounding structures? Explain _____
_____
_____

Comments

PART H – PERSONAL RESPIRATORY PROTECTION PROGRAM

1. Does your facility have a personal respiratory protection program? _____

2. Which HCWs are included in the personal respiratory protection program?

___ Physicians
___ Nurses
___ Administrators
___ Transportation staff
___ Housekeeping staff
___ Mid-level practitioners (NP, PA)
___ Respiratory Therapists
___ Janitorial staff
___ Dietary workers
___ Others _____

3. What types of respirators are used in your facility? Include manufacturer, model, and specific application. (e.g. ABC model 1234 for bronchoscopy, DEF model ZN95 for all HCWs working with TB patients) _____

4. Is there annual respiratory protection training for HCWs? _____
5. Is there initial fit testing for HCWs? _____
6. Is there periodic fit testing for HCWs? _____ When _____
7. Describe the method of fit testing used: _____
_____

Comments:

This TB risk assessment is performed annually to assess and assign an appropriate risk classification and corresponding TB screening plan for this facility.

Date of next TB Risk Assessment review (annually) _____

Assigning TB Risk Classification & Frequency of TB Screening

Low Risk Setting	Low Risk TB Screening
- Inpatient site <200 beds & <3TB cases/year -Inpatient site ≥200 beds & <6TB cases/year -Outpatient site <3TB cases/year ➢**AND** No risk factors present (See PART C).	▪ Baseline two-step TST or TB screening blood assay (IGRA) upon hire & admission to Long Term Care (LTC), Dialysis or Chemical Dependency units. ▪ Medical evaluation, symptom assessment & chest x-ray if TST positive or if symptomatic ▪ **No annual** TST or blood assay required ▪ Perform annual symptom assessment if positive screening test, Latent TB Infection or prior Active TB Disease ▪ Persons identified as a contact to an infectious case and having unprotected exposure will be evaluated in accordance with the Health Departments contact investigation protocols

Medium Risk Setting	Medium Risk TB Screening
-Inpatient site <200 beds & ≥3TB cases/year -Inpatient site ≥200 beds & ≥6TB cases/year -Outpatient site ≥3TB cases/year ➢**OR** Other risk factors apply (See Part C)	▪ Baseline two-step TST or TB screening blood assay (IGRA) upon hire & admission to Long Term Care (LTC), Dialysis or Chemical Dependency units. ▪ Medical evaluation, symptom assessment & chest x-ray if TB screening test is positive or if the person is symptomatic for TB. ▪ **Perform annual** TB screening tests (either a TST, IGRA or symptom review risk assessment) for each HCW. ▪ **Perform annual** symptom assessment if positive TST Latent TB Infection or prio Active TB Disease ▪ Persons identified as a contact to an infectious case and having unprotected exposure will be evaluated in accordance with the Health Departments contact investigation protocols

Potential Ongoing Transmission Setting	Potential Ongoing Transmission TB Screening
Evidence of ongoing *M. tuberculosis* transmission ***- This is a temporary classification only, warranting immediate investigation. After the ongoing transmission has ceased, the setting will be reclassified as Medium Risk for at least one year.***	***Report to local health department immediately*** ▪ Persons identified as a contact to an infectious case and having unprotected exposure will be evaluated in accordance with the Health Departments contact investigation protocols ▪ Medical evaluation, symptom assessment & chest x-ray if TB screening test is positive or if person is symptomatic ▪ Testing for TB infection will need to be performed as often as necessary to Determine that ongoing transmission has ended. ▪ Perform annual symptom assessment if positive TST Latent TB Infection or prior Active TB Disease ▪ Baseline two-step TST or TB screening blood assay (BAMT) upon hire & admission

Indications for Two-Step Tuberculin Skin Testing - TST

Employee & Resident TST Situation	Recommended TST Testing
1. No previous TST result	1. Two-step baseline TST or IGRA
2. Previous negative TST result >12 months before new employment	2. Two-step baseline TST or IGRA
3. Previous documented negative TST result ≤12 months before employment	3. Single TST or IGRA needed for baseline testing; this will be the second-step
4. ≥2 previous documented negative TSTs and most recent TST >12 months before employment; resident/employee	4. IGRA or a Single TST; two-step is not necessary
5. Previous documented positive TST result	5. No TST or IGRA; need TB symptom screen and baseline X-ray
6. Previous undocumented positive TST result	6. Two-step baseline TST or IGRA
7. Previous BCG vaccination – BCG effect on TST results usually wanes after 5 years	7. Two-step baseline TST or IGRA

Definitions

Health-care Workers (HCWs) – HCWs include all paid and unpaid persons working in health-care settings.

Upon Hire – The administration and reading of the two-step TST or a single IGRA of new employee's must be completed prior to beginning work. If the first TST is negative, the second TST should be placed 1-3 weeks later. Regardless of the initial TST result, no employee should be allowed to begin work if he/she has symptoms of active pulmonary TB until a complete TB medical evaluation has been completed and TB disease has been ruled out. If a new employee has a positive TST, the employee must have a medical evaluation to rule out active TB. Initiation of treatment for LTBI to prevent progression to disease should be strongly considered. If a new employee has documentation of a previous positive TST at the time of hire, but has not completed treatment for LTBI, initiation of treatment for LTBI should be strongly considered. Any employee who does not complete treatment for LTBI should be educated about the signs and symptoms of TB, and monitored for development of symptoms of infectious TB at least annually. Facilities can use the TB Symptom Assessment Form for this purpose. If a new employee is TST positive and has completed treatment for LTBI, also monitor annually using the TB Symptom Assessment Form. If an employee has documentation of cured active TB, also monitor annually with the TB Symptom Assessment Form.

On Admit – The administration and reading of the resident's first TST or single IGRA should be completed prior to admission. If the first TST is negative and the resident is asymptomatic for TB, the resident can be admitted and the second TST test placed 1-3 weeks later. Regardless of the first TST result, if the potential resident has symptoms consistent with TB, the resident should not be admitted until a complete medical evaluation for TB has been completed, including an x-ray and the collection of sputum specimens for bacteriological examination to rule out active TB disease. If the first TST is positive, the potential resident should not be admitted until a thorough medical evaluation for TB has been completed. Residents with a positive TST who have had active disease ruled out should be strongly considered for treatment of latent TB infection (LTBI) to prevent progression to disease. If treatment of LTBI is not completed, staff should be made aware of the resident's TST status without treatment for

LTBI and the resident should be regularly monitored for development of symptoms of infectious TB, and at least annually using the TB Symptom Assessment Form. If a resident is TST positive and has completed treatment for LTBI, also monitor annually using the TB Symptom Assessment Form. If a resident has documentation of cured active TB, also monitor annually with the TB Symptom Assessment Form.

TB Medical Evaluation – The purpose of the medical exam is to diagnose TB disease or LTBI, and to select treatment. A medical evaluation includes a medical history, a TB symptom screen, a physical exam, and diagnostic tests as needed (e.g. TST, chest x-ray, bacteriological exams, HIV testing) this can only be performed by a licensed practitioner who has the ability to diagnose and treat LTBI and/or TB disease.

Annual Symptom Assessment – Complete this form for the following residents/employees who initially have had Active TB Disease ruled out:

1. Residents/employees with Latent TB Infection (with or without completion of therapy)
2. Residents/employees with prior Active TB Disease who have completed therapy

Chest X-ray – Residents/employees with a positive TST who have a normal chest x-ray should not have repeat chest x-rays performed routinely. Repeat x-rays are not needed unless TB signs or symptoms develop or a clinician recommends a repeat x-ray on a case-by-case basis. Employees or residents who have Latent TB Infection, with or without treatment, or cured Active TB Disease should be evaluated annually with a symptom assessment and educated about TB signs and symptoms and the need to report such symptoms if present.

Interferon gamma release assay (IGRA) – alternative whole-blood screening test for diagnosis of M. *tuberculosis* infections, including both TB disease and LTBI (neither the TST nor the IGRA's differentiate between TB disease and LTBI).

Definition of Active TB Disease vs. Latent TB Infection:

Active Pulmonary TB Disease	Latent TB Infection (LTBI)
Symptoms – cough ≥ 2-3 weeks with or without sputum production that may be bloody; chest pain; chills; fever; night sweats; loss of appetite; unexplained weight loss; weakness or easy fatigability; malaise	No Symptoms Does not feel sick
Can spread TB to others	Cannot spread TB to others
Usually has a positive TST Chest X-ray usually abnormal	Usually has a positive TST Chest X-ray normal
Report suspect or confirmed TB to local health department immediately	Not reportable to local health department

[ii] Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings, 2005 *MMWR* 2005; page 10